

Multiple sequence alignment PS01124, HTH_ARAC_FAMILY_2..

AARP_PROST/22-120	SEILVWIEGNLTNR.....LSLDDIAQHSGYTKWHLQVFRKIVGMPLGEYIRRRRI
ADA_ECOLI/85-183	DKITHACRLLEQETP.....VTLEALADQVAMSPFHLHRLFKATTGMTPKAQQAQWRA
ADA_MYCTU/87-185	ARAMELIADGTVDRA.....DGVSGLAQGLGYTIQRLERLLQAVVGAGPLALARAQRM
ADA_SALTY/94-183	-----LEQET.....PVTLAFLAQAVAMSPFHLHRLFKASTGMTPKGQQQAWRA
ADAA_BACSU/102-200	DLITEYIDKNFTEK.....LTLESLADICHGSPVHMHTFFKIKGITLVEYIQQVRV
ADIY_ECOLI/149-246	DSVQIIESDIHKD.....WNLSMVASCLCLSPSLKKKKLSENT-SYSQIITTCRM
AGGR_ECOLI/164-261	DKVRNTIEKLSKR.....WTLAIADENFVSEITIRKRLSEYI-TFNQILMQSRM
APPY_ECOLI/139-236	CKITGIISFNIERQ.....WHLKDIAELIYTSLSIKKRLDEGT-SFTEILRDTRM
ARAC_CITFR/180-279	RDACQYISDHLADSN.....FDIASVAQHVCVCLSPRLSHLFRQQLGISVLSWREDQRI
ARAC_ECOLI/180-279	REACQYISDHLADSN.....FDIASVAQHVCVCLSPRLSHLFRQQLGISVLSWREDQRI
ARAC_ERWCH/186-284	IEACQYITSNLAGS.....LRIDEVARHVCLSPRLSHLFRQQLGISVLSWREDQRI
ARAC_SALTY/180-279	RDACQYISDHLADSH.....FDIASVAQHVCVCLSPRLSHLFRQQLGISVLSWREDQRI
ARAL_STRAT/202-300	ASALTFLHRDPAPS.....WTVAELASAAVSRSTLAARFKATVGGPLEYLTRWRI
ARAL_STRLI/202-300	ATAITCLHRDPAPS.....WTVADLADTAASRSTLAARFKATVGGPLEYLTRWRI
CAPR_YERPE/8-107	NSIQIYIEENLESKf.....INIDCLVYSGFSRRLQISTKXYVGMPIGYIRVRA
CELD_ECOLI/168-274	DDVPQWLKSTVEKVNdkqfseALENNVALSAKQSEYLTRATQRYGKTPMQIINEIRI
CFAD_ECOLI/164-261	DKVRNVIEKDLRSK.....WTLGIIADAFNVSEITIRKLESENT-NFNQILMQLRM
CSVR_ECOLI/166-263	DKVRGVIEKDLRSK.....WTLAIADVFNVSEITIRKLESENT-NFNQILMQSRM
ENVY_ECOLI/149-246	DSVCRIIQSDIQHY.....WNLRIVASSLCLSPSLKKKKLKNENT-SYSQIVTECRM
EUTR_ECOLI/243-344	SRAREVYLENNSEP.....VTVDLCNQLHVSRTLQNAFHAIIIGIGPNAWLKRIRL
EUTR_SALTY/243-344	SRAREVYLENNSEP.....LTVDLCNQLHVSRTLQNAFHAIIIGIGPNAWLKRIRL
EXSA_PSEAE/171-269	ERLQLEMERKHYLNE.....WKLSDFSREFGMGLTTFKELFGSVYGVSPRAWISERRI
FAPR_ECOLI/154-251	ERIVTLLEFSDLTRK.....WKLSDIAEEMHISEISVRKLEQECCL-NFNQLILDVRM
FEAR_ECOLI/199-299	QKVVTLIDNNIREEL.....LRPEWIAGETGMVSRSLYRNFADKGL-VVAQYIRNRRL
GADX_ECO27/145-242	TRVCTVINNNIAHE.....WTLARIASELLMSPSLLKKKLREEGT-SYSQILLTECRM
GADX_ECO57/145-242	TRVCTVINNNIAHE.....WTLARIASELLMSPSLLKKKLREEGT-SYSQILLTECRM
GADX_ECOLI/145-242	TRVCTVINNNIAHE.....WTLARIASELLMSPSLLKKKLREEGT-SYSQILLTECRM
GLXA_RHIME/223-321	LAVLEKMETAIERP.....LDR TAMARLAGVSPRLHDLRFREHRTGGLDITYEIRL
HRPB_RALSO/375-477	RRARYRIIENIERSd.....LTTRVAAHINVTERRALQALAFKSAVGMSPSSVIRMRRL
INVF_SALTY/112-210	YWLVGXLLAQSTSG.....NTWRMLGEDYGVSYTHFRRLCSRALGKAKSELNRWRM
LACR_STAXY/174-272	QHAVDFINTNYQKH.....ITVEDVAKSVNITRSHLTKLFKNLGCSPKEYLTYIRM
LCRF_YERPE/167-265	ERLQKFWENYLOQ.....WKLKFAREFGMGLTTFKELFGTYVYGISPRAWISERRI
LUMQ_PHOLE/148-246	VLIDNYIEQHLOKK.....ISVAELSSVAFLAQSQFYALFKSQMGITPHQYVLRKRL
MARA_ECOLI/14-112	HSILDWIEDNLESP.....LSLEKVSERSGYSKWHLQRMFKETGHSLSLQGYIRSRKM

Figure 1A.

MARA_SALTY/14-112
 MELR_ECOLI/194-292
 MMSR_PSEAE/201-299
 MMSR_STRMU/176-274
 MXIE_SHIFL/99-199
 MXIE_SHISO/99-199
 ORUR_PSEAE/241-338
 PCHR_PSEAE/201-296
 PERA_ECO2/168-265
 POOR_SALTY/195-293
 PORA_PROVU/7-107
 RAFR_PEDPE/176-274
 RAMA_ENTCL/9-107
 RAMA_KLEPN/9-107
 RHAR_ECOLI/209-307
 RHAR_SALTY/179-277
 RHAS_ECOLI/174-272
 RHAS_SALTY/174-272
 RHRA_RHIME/210-310
 RNS_ECOLI/164-261
 ROB_ECOLI/8-106
 SOXS_ECOLI/7-105
 SOXS_SALTY/7-105
 TQPN_VIBCH/172-269
 TETD_ECOLI/31-129
 THCR_RHOER/227-328
 URER_ECOLI/171-268
 URER_PROMI/171-268
 VIRF_SHIDY/161-258
 VIRF_YEREN/167-265
 VIRS_MYCTU/236-334
 XYLR_ECOLI/288-386
 XYLR_HAEIN/288-386
 XYLS_PSEPU/214-315
 XYS1_PSEPU/214-315
 XYS2_PSEPU/39-140
 XYS3_PSEPU/214-315
 XYS4_PSEPU/214-315

HSILDWIEDNLESP.....LSLEKVSERSGYSKWHLQRMFKETGHSLOQYIRS.KM
 SQMLGFIAENDQA.....LTINDVAEHVKLNANYAMGIFORVMQITMKQYITAMRI
 DOLHAYMREHJHAR.....LELERIAAFONTSKFHYVSRYKAITGRTPTQHOHLHLKI
 NOVKKIHSQYSS.....LRVNDIAKLNLSRSLFKPKSNTLSIKYILQVIRM
 YHLVLYLLRTEKEK.....eVRIKSLTEHYGVSEAYFRSLCRKALGAKVKEQLNTWRL
 YHLVLYLLRTEKEK.....eVRIKSLTEHYGVSEAYFRSLCRKALGAKVKEQLNTWRL
 TRVRLLARPGDF.....PDLEQAARELHSGRSRLRLSSLG-TYQOVLDDVRK
 HAARDLLVGALEP.....PSLDTLASRVGMNPKLTAGFRKVFASVFGYLOEYRL
 DRVIRKVIDISKN.....WKLGEVSSSMFMSDDSCLRKQNLKENL-TFKKIMLDIKM
 KXALRYIDAHLSDD.....LREEDVASHVTSPYFSLFKPKYQOGIGFNAWNVRQM
 NDILKMLETQLORE.....SIKIDTIANKSGYSKWHLQRIKFKDFKGCITLGEYVRKRL
 NLAVSYLQENYSTG.....CTINDLCHYLNLSRSLYTLFKTHANTSPQKLLTKLRL
 DTIVENIDDLNLOP.....LRIEDIARHAGYSKWHLQRLFLQYKGESLGRYIRERKL
 DTIVENIDDLNLOP.....LRIDDIARHAGYSKWHLQRLFLQYKGESLGRYIRERKL
 DXLITRLAASLXSP.....FALDKFCDEASCSERVLRQOFRQQTGMTINOYLROVRV
 DXLITRLAASLXSP.....FALDAFCQOQCSERVLRQOFRQQTGMTINOYLROVRV
 NLLANLEHDHFADE.....VNDADAVADQFSLSLRTHRLKQQTGLTPQRYLNLRL
 NOLMANLEHDHFADE.....VWEAVAEQFSLSLRTHRLKQQTGLTPQRYLNLRL
 ASIKRVEQNLANGS.....FSITDVAERITPTRAIKQFFSREGT-TFSRYVLGRRL
 DKVRNLIEKDLRK.....WTGLIADAFNASEITIKRLESENT-NFNQILMQLRM
 RDLLIWLGLHLOP.....LSLDNVAKAGYSKWHLQRMFKDVTGHAIGAYIRARRL
 QDLIAMEDEHIDOP.....LNIDVAKSGYSKWTQRMFRTVTHQTLGDYIRQRRL
 QTLIEMIDEHIDOP.....LNIDVAKSGYSKWTQRMFRTVTHQTLGEYIRQRRL
 EKISCLVKSDITRN.....RWADIQCELRTNRMLKKELESRGV-KFRELINISIRI
 KDVLNIEHNLDQS.....LLDDVANKAGYTKWYFQRLFKKVTGVTLASYPARRL
 RLAVDYLEAHQOP.....LTVAQVARNVGVSRISLQVGFQNSLGTTPMRQLKIIRM
 QAITHLITQEPQK.....WHLDDVAKALFTTPTSLRRHLNREGV-SFRQLLLDVRM
 QAITHLITQEPQK.....WHLEDVAKTLYTTPSLRRHLNREGV-SFCOLLDDVRI
 DQIRKIVEKNIEKR.....WRLSDISNNLNLSEIAVRKRLESEKL-TFQOILLDIRM
 ERLOKMEENTLQO.....WLSKFAREFGMGLTTFKELFGTVYIGISPRAWISERRI
 ERVVGILARLLFTGQ.....CSAEAIADQDMDHPTLQORRLAAGL-RCHDLIERERR
 IQAMHYIRNHACKG.....IKVDQVLDVAVGISRSNLEKRFKEEVGETIHAMIHAEKI
 IQAMHYIRNHACKG.....IKVQVLDHLETSRSNLEKRFQFQNMKTIHQVIEEKI
 ERVVOFIEENLKN.....ISLERLAELAMSPRSLYNLFKXAGHTTPKNYIRNRKL
 ERVVOFIEENLKN.....ISLERLAELAMSPRSLYNLFKXAGHTTPKNYIRNRKL
 ERVVOFIEENLKN.....ISLERLAELAMSPRSLYNLFKXAGHTTPKNYIRNRKL
 ERVVOFIEENLKN.....ISLERLAELAMSPRSLYNLFKXAGHTTPKNYIRNRKL
 ERVVOFIEENLKN.....ISLERLAELAMSPRSLYNLFKXAGHTTPKNYIRNRKL
 ERVVOFIEENLKN.....ISLERLAELAMSPRSLYNLFKXAGHTTPKNYIRNRKL

Figure 1B.

Y4FK_RHISN/318-417
 YA52_HAHIN/194-295
 YBBB_BACSU/166-264
 YBCM_ECOLI/165-262
 YCGK_ALTCA/67-163
 YD95_MYCTU/242-343
 YDEO_ECOLI/137-233
 YDIP_ECOLI/183-281
 YEAM_ECOLI/158-258
 YFIF_BACSU/192-289
 YHIW_ECOLI/139-236
 YIDL_ECOLI/197-295
 YIJO_ECOLI/172-270
 YISR_BACSU/183-281
 YKGA_ECOLI/19-117
 YKGD_ECOLI/177-278
 YMCR_STRLA/184-281
 YPDC_ECOLI/184-282
 YQHC_ECOLI/213-311

AARP_PROST/22-120
 ADA_ECOLI/85-183
 ADA_MYCTU/87-185
 ADA_SALTY/94-183
 ADAA_BACSU/102-200
 ADIY_ECOLI/149-246
 AGGR_ECOLI/164-261
 APPY_ECOLI/139-236
 ARAC_CITFR/180-279
 ARAC_ECOLI/180-279
 ARAC_ERWCH/186-284
 ARAC_SALTY/180-279
 ARAL_STRAT/202-300
 ARAL_STRLI/202-300
 CAFR_YERPE/8-107
 CELD_ECOLI/168-274

Figure 4C.

LKAEATVRENLTNP.....VTIEDLAAARACTPRAIQMFRTRYRGSPMSVLCNYRL
 KRLNTALIALLOQPT.....dWHIEQLAEATMSRANFIRIFQOHIQSPGRFLTKVRL
 ERTKHYIETHADTK.....ITLAQLSQVAGISAKHYSESFKKWTQSQSVTEFTKTRI
 SRCYNLLSEPGTK.....WTANKVARYIXISVSTLHRRRLASEGV-SFQSIILDDVRL
 QNAMLTYENNYND.....INIDTVAFSVGVSRSYLVKQFRLATNKTINNRIIEVRI
 RGITAVRSKLFDRDS.....1FPTFTDVAGELDMHPRTARRLAEEGT-SFRALLGEARS
 GKVRNIVNMKPAHP.....WKLKIDICOLYISESLKKLKKOEQT-TFSQIILDDARM
 KDILFYLNNNYREK.....ITLEQLSKFRASVSYTCHEFTKRYRISPINVVIQRRM
 PKIRTVEMMARGPYE.....WGALQWAGFFAMSERNLARLIVKETGLSFRQWQOQLQ
 TEVKLHIKDNLSQP.....LKLTDVASHFHISGRHLSRLFAELGVSYSEFVQNEKI
 GKVERLISFDIAK.....WYLRDIAERMYTSESILKKLQDENT-CFSKILLASRM
 EKLIA TLHASLQOR.....NSVADMAATIPCSEAWLRRLFLRYTGKTPKEYYLDARL
 EAIRDYIDERYASA.....LTRESVAQAFYISPNVLSHLFQKTGAIGENEYLNHTRL
 WEARYLOEHYK.....TTIKOLSLALHYHODYVSRQOVLGVTPAQYTNVRM
 QOLLEWIECNLEHP.....ISIEDIAQSGYSRNIQLLFRNFMHVPLGEYIRKRL
 PRLGAVIQOULEMPGH.....awTVESLASIAHMSRASFQALFRDVSGETTPLAVLTKRL
 DPLRAVVVSLEAG.....RSVTATADSVGLGARQLHRRSLAAGYGPKTLARVLRM
 HSICNVVQDNVAP.....LTRESVAQFFNITTNHLSKLPQCHGTMRFIEYVRWVRM
 SRVLKRIENKYTEN.....LSVEQLAAEANMSVSAFHNFKSVTSTSPLOYLKNYRL

CEAAKELQTTNL...QVIDIALKYQFSQSFARFKAYLGISPSLYRLS
 RRLRESLAKGE-...SVTTSILNAGFPDSSSYTRKADETLGWTAKQFRHG
 QTA RVLIETNL...PFGDVAFAGFSSIROFNDTVRLACDGTPTALRAR
 RRLREALAKE-...PITAAIYRAGFPDSSSYRHADQTLGWTAKQFRKG
 HAAKKYLIQTNK...AIGDIAICVGIANAPYFIFLKKKTGOTPARFROM
 RYAVNELMMDGK...NISQVSQSGYNSTSYFISVFKDFYGMTPLHYVSO
 SKAALLLDNSY...QISQISNMIGFSSSTSYFIRLFVXHFITPKQFLTY
 RYAKKLITSNSY...SINVVAQKCGXNSTSYFICAFKDYGVTPSPHYTEK
 SOAKLLILSTRM...PIATVGRNVGDDQDLYFSRVFKKCTGASPSPEFRAG
 SOAKLLILSTRM...PIATVGRNVGDDQDLYFSRVFKKCTGASPSPEFRAG
 IRAKLLILQTOE...SIANIGRVVVDQDLYFSRVFKKRVGVSPSPDFRR
 SOAKLLILSTRM...PIATVGRNVGDDQDLYFSRVFKKCTGASPSPEFRAG
 ELTARQLREGSA...PLAAIAHSVGYGSESALSVAFKRVLGMNPGDYRKH
 ELAARQLREGNA...TLASIAHSVGYGSESALSVAFKRVLGMNPGDYRKH
 SRAALLRLTRL...TIEISAKLFYDSQQFTTREFKKIFGYTTPRQYRMI
 NFAKKQLEWNTY...SVTDIAFEAGYSSPSLFIKTKFKLTSFTPKSYRKK

CFAD_ECOLI/164-261
 CSVR_ECOLI/166-263
 ENVY_ECOLI/149-246
 EUTR_ECOLI/243-344
 EUTR_SALTY/243-344
 EXSA_PSEAE/171-269
 FAPR_ECOLI/154-251
 FEAR_ECOLI/199-299
 GADX_ECO27/145-242
 GADX_ECO57/145-242
 GADX_ECOLI/145-242
 GLXA_RHIME/223-321
 HRPB_RALSO/375-477
 INVE_SALTY/112-210
 LACR_STAXY/174-272
 LCRF_YERPE/167-265
 LUMQ_PHOLE/148-246
 MARA_ECOLI/14-112
 MARA_SALTY/14-112
 MELR_ECOLI/194-292
 MMSR_PSEAE/201-299
 MMSR_STRMU/176-274
 MXIE_SHIFL/99-199
 MXIE_SHISO/99-199
 ORUR_PSEAE/241-338
 PCHR_PSEAE/201-296
 PERA_ECO27/168-265
 POGR_SALTY/195-293
 PORA_PROVU/7-107
 RAFR_PEDPE/176-274
 RAMA_ENTCL/9-107
 RAMA_KLEPN/9-107
 RHAR_ECOLI/209-307
 RHAR_SALTY/179-277
 RHAS_ECOLI/174-272
 RHAS_SALTY/174-272
 RHRA_RHIME/210-310
 RNS_ECOLI/164-261

Figure 4.

SKAALLLENSY...QISQISNMIGISSASYFIRVFNKHGYVTPKQFFTY
 SKAALLLENSY...QISQISNMIGISSASYFIRFNKHGVTTRSFLII
 RYAVQMLMDNK...NITQVACLGYSTSYFISVFAFYGLTPLNLYAK
 NAVRRELISPSQSMTVKDAAMQWGFHILGQFATDYQQLSEKPSLTLHQ
 NAVRRELISPSQSMTVKDAAMQWGFHILGQFATDYQQLFAEKPSLTLHQ
 LYAHQLLNSDM...SIVDIAMEAGFSSQSYFTQSYRRFGCTPSRSRQG
 NQAAKFIIRSDH...QIGMIASLVGYTSVSYFIKTFKXYGVTPKKFEIG
 DFCADATRHADD.eKLAGIGFHWGFSQSHFSTVFKQRFQGMTPGEYRRK
 ORALQLIVYGV...SIXRVAVSCGHSVSFYTYVFRNYYGTMPTTEYQER
 ORALQLIVIHGF...SIXRVAVSCGHSVSFYTYVFRNYYGTMPTTEYQER
 ORALQLIVIHGF...SIXRVAVSCGHSVSFYTYVFRNYYGTMPTTEYQER
 RHARLLQOSPL...SIPETIAYATGFSPPAHFSNAFKRLFSQTPGSLRRR
 EGIRSDLLDSERNPNIIDTASRWGIARSALVGYRKQFNEAPSETIWR
 AQSLNSVEGHE...NITQLAVNHGYSSPSHFSSEIKELIGVSPRKLNSI
 YHASQLLHTST...LISDISRQVGYKODPLLFKNFTKHFESASSEYRHH
 LYAHQLLNGXM...SIVDIAMEAGFSSQSYFTQSYRRFGCTPSQARLT
 DLAKQLIAERQX...PLSQVACLGCFFSQSSQSFQAFRRLYGMSPTRYQFF
 TEIAQKLKESNE...PILYLAERYGFESQQLTTRTFKNYFDVPPHKYRMT
 TEIAQKLKESNE...PILYLAERYGFESQQLTTRTFKNYFDVPPHKYRMT
 NHVRALLSDTDK...SILDIALTAGRSSRSFYSTFGKVGMSPQOYRKL
 EYACQLDSSDQ...SVARVGQAVDYDDSYFSLRFSKVMGLSPSAYRQR
 KRSQYLLNPKL...SIAEISNSVGFSDSLAFSKAFKNTFGKSPSKFRKE
 VNGLLDVFLHNQ...TITSAAMNNGYRSTSHFSNEIKTRIGFSARELSNI
 VNGLLDVFLHNQ...TITSAAMNNGYASTSHFSNEIKTRIGFSARELSNI
 RLALQYLTTLTOL...PLYETALLGFNDSSNFRRAFRKWTGKLPSPYREA
 REAHRMLCDEEA...NVSTVAVRUGYS-PAHFSIAFRKRYGISPSEIR--
 KHASLFLRTTDK...NIDEISCLVGFNSTSYFIKVFKEVYNTTPKKYNGV
 VSARELLCHSDW...SIAIARNLGFSTSYFCKVFRQTYQVTPQAYRQQ
 LEAAKSLQEKOM...SILDIALMVGFSQATFTRIFKHFNTTPAKFREN
 EDARQLSTSN...SVQSIANNVGYKDSFTFSKAFKRYSGASPSYRKS
 LLAARDLRESDE...RVYEICLRYGFESQQTFTRIETTFHQPPGAYRKE
 LLAARDLRDQDQ...RVYDICKLYGFDSQQTFTTRVFTTRTNQPPGAYRKE
 CHAQYLLQHSRL...LISDISTECGFEDSNYFSVFTRETGMTPSQWRHL
 CHAQYLLQHSRL...MISEISMOCGFEDSNYFSVFTRETGMTPSQWRHL
 MKARHLLRHSEA...SVTDIAYRCGFSNHSFTLFRREFNWSPADIRQG
 IKARHLLRHSDH...SVTEIAYRCGFSNHSFTLFRREFNWSPADIRQG
 SLAKSLILAEGEA...TSISQIAYNVGNDLSYFNTRFSRYGVRPSDLRL
 SKAALLLENSY...QISQISNMIGISSASYFIRFNKHGYVTPKQFFTY

ROB_ECOLI/8-106	SKSAVALRLTAR...PILDIALQVRFDSSQOTTFRAFKKQPAQTPALYRRS
SOXS_ECOLI/7-105	LLAAVELRTTER...PIFDIANDLGVSSQOTFSRVFRQDRTPSDYRHR
SOXS_SALTY/7-105	LLAAVELRTTER...PIFDIANDLGVSSQOTFSRVFRREFDRTPSDYRHR
TCBN_VIBCH/172-269	SYSISLMKTGEF...KIKQIAYSGFASVSFSTVFKSTNNVAPSEYLFM
TETD_ECOLI/31-129	TKAAVELRLTKK...TILEIALKIQFDSQOSTRRFKYIFKVTPSYTARN
THCR_RHOER/227-328	QXAKDOLLRADPaseGVTEIAQNGFLHVGREFAGEYKQTFGVSPSEDLRT
URER_ECOLI/171-268	GMALNYLTFSNY...SVFQISHRCGFGSNAYFCDFVKRKNMTPTSPQFLQ
URER_PROMI/171-268	PIALNYLTFSNY...SVFQISHRCGFGSNAYFCDAFKRKYGMTPTSPQFTQ
VIRF_SHIDY/161-258	HHAAKLLNLSQS...YINDVSRLLIGISSPSYFIRKENEYVIGITPKFYLY
VIRF_YEREN/167-265	LYAHQLLNGKM...SIVDIANEAGFSQSFTQSYRRRFGCTPSQARLT
VIRS_MYCTU/236-334	AQAARYLAQPL...YLSQIAVLLGYSEQALNRSRRWFGMTPTPROYRAY
XYLR_ECOLI/288-386	EXARSLLISTTL...SINEISQMCQYPSLQYFYSVFKKAYDTTPKBYRDV
XYLR_HAEIN/288-386	SPAKNLLQOTDI...SIKEITEICGYPSTQYFYSVFKKEFEMTPKEFRLN
XYLS_PSEPU/214-315	ESIRACINDPSANVTSITEALDYGFLHGRFAENYRSFAFGLPBDTLRQ
XYS1_PSEPU/214-315	ESIRACINDPSANVTSITEALDYGFLHGRFAENYRSFAFGLPBDTLRQ
XYS2_PSEPU/39-140	ECVRACLSNPTTHIXSITEVALDYGFLHGRFAEKYRSTFGELPBDTSL
XYS3_PSEPU/214-315	ECIRARLSDPNANVTSITEMALDYGFFHTGRFAENYRSTFGELPBDTLRR
XYS4_PSEPU/214-315	ECIRARLSDPNANVTSITEMALDYGFFHTGRFAENYRSTFGELPBDTLRR
Y4FK_RHISN/318-417	AAAHGAIKAGRAG...SITEALNLFQSNPGRFSVLKSAAYGLSPSSALRF
YA52_HAEIN/194-295	QSAAFLLKQSQ...SVLAIALEVGYQSEAHFKVFNKYYQLSPSQYRKS
YBBB_BACSU/166-264	TKAKRLMAKSN...KLKEIAHQTYQDEFFYSRIFKKYTGCSPTSVMKK
YBCM_ECOLI/165-262	NNALSAIQOTVK...PISEIARENGYKCPSRFTERFHNRFNITPREIRKA
YCGK_ALTCA/67-163	EQAKKVLKK--...SVTETAYEVGFNNSNYFATVFKKRTNYTPKQFKRT
YD95_MYCTU/242-343	TVAVDLLNVGL...TVQOVSTRLGYTEVSTFSAFKRWYGVAPSEYSRR
YDEO_ECOLI/137-233	QHAKNLIRVEG...SVNKAIAEQCGYASTSYFYIYAFKHFNGSPKRVSKE
YDIP_ECOLI/183-281	TEAKWSLTNTEL...SQAEISWRVGVENVDFAKLFLRHVGCSPPDYRRQ
YEAM_ECOLI/158-258	IMALQGLVKGD...TVQKVAHTLGYDSTTAFITMFKKGLGQTPQRYIAR
YFIF_BACSU/192-289	NKAABELLSNL...SIKEIAEEIGFS-VHYFTRVFSAKIGSSPGLFRSL
YHIW_ECOLI/139-236	SMARLLELRQI...PLHTIAEKCGYSSTSYFINTFRQYGVTPHQFAQH
YIDL_ECOLI/197-295	DLALSLLKQQGN...SVGEVADTLNFFDSFHFSKAFKHKFGYAPSAVLKN
YIJO_ECOLI/172-270	EHAKTLLKGYDL...KVKEVAHACGFVDSNYFCRLFRKNTERSPSEYRRQ
YISR_BACSU/183-281	TEAKRLSSND...KMGVIAETVGMEDPTYFSKLFQIEGSPIEYRKI
YKGA_ECOLI/19-117	CRAAILVRLTAK...SMLDIALSHFDSQSPSREFKLFGLGCSPREYRHR
YKGD_ECOLI/177-278	QIAAQMSRETL...PVVVIASVGYASESSFKHAFVREFGCTPGEYRER
YMCN_STRLA/184-281	QRAURLARAGV...PFAETATLAGFADQAHARDVREMGSSLSSELVER
YPCD_ECOLI/184-282	AKARMILQXYHL...SIEHVAQRCGFPDSDYFCRVFRROFGLTPGEYSAR
YQHC_ECOLI/213-311	HKARPMIHDGM...KASAAAMRVGYESASQFSREFKRYFTGVTGGEAAR

Figure 1E.

MarA protein (BAA15221)

MTMSRRNTDAITHSILDWIEDNLESPLSLEKVSESGYSKWHLQRMFKKETGHSLGQYI
RSRKMTEIAQKLKESNEPILYLAERYGFESQQTLTRTFKNYFDVPPHKYRMTNMQGESR
FLHPLNHYS

Rob protein (AAC73403)

MRYDKELTENEMIRQKILQQLLEWIECNLEHPISIEDIAQKSGYSRRNIQLFRNFMHVPL
GEYIRKRRL
CRAAILVRLTAKSMLDIALSLHFDSQQSFSREFKKLFGCSPREYRHRDYWDLANIFPSFLI
RQQQKTECR
LINFETPIFGNSFKYDIEVSNKSPDEEVKLRRHHLARCMKNFKTDIYFVSTFEPSTKSVD
LLTVETFAGTVCEYADMPKEWTTTRGLYDPHVIWTQA

SoxS protein (P22539)

MSHQKIIQDLIAWIDEHIDQPLNIDVVAKKSGYSKWYLQRMFRTVTHQTLGDYIRQRRL
LLAAVELRTTE RPIFDIAMDLGYVSQQTFSRVFRRQFDRTPSDYRHRL

Figure 2

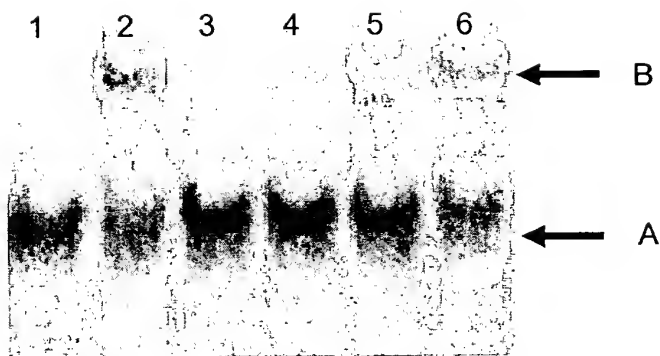
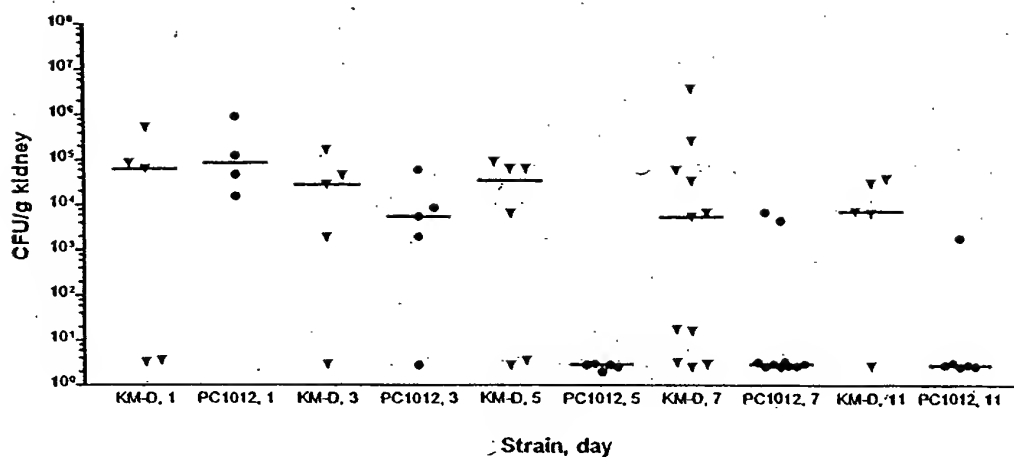


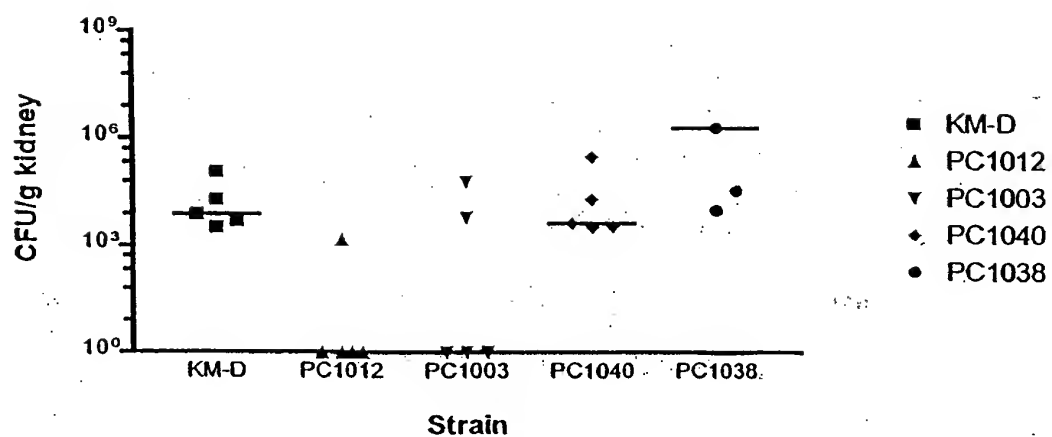
Figure 3



- ▼ KM-D, 1
- PC1012, 1
- ▼ KM-D, 3
- PC1012, 3
- ▼ KM-D, 5
- PC1012, 5
- ▼ KM-D, 7
- PC1012, 7
- ▼ KM-D, 11
- PC1012, 11

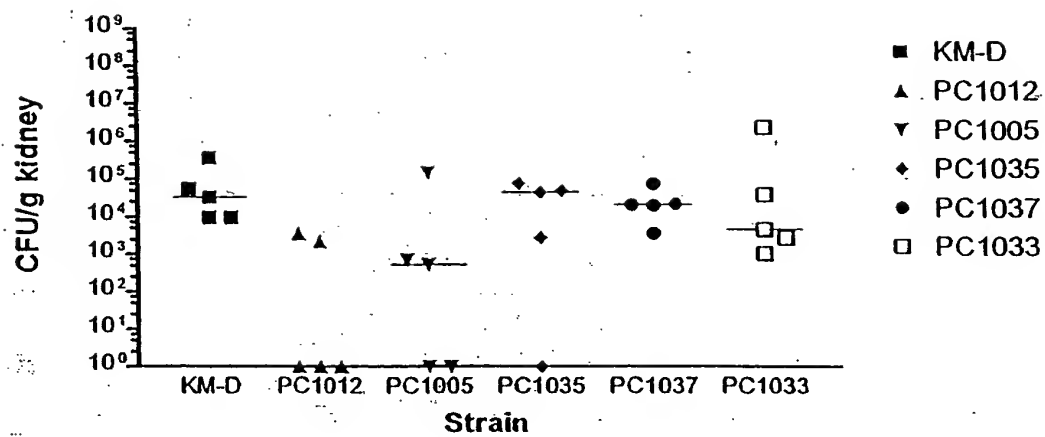
Strains compared	Student's <i>t</i> -test values (p)
KMD vs. PC1012, day 1	0.249
KMD vs. PC1012, day 3	0.752
KMD vs. PC1012, day 5	0.018
KMD vs. PC1012, day 7	0.038
KMD vs. PC1012, day 11	0.017

Figure 4.



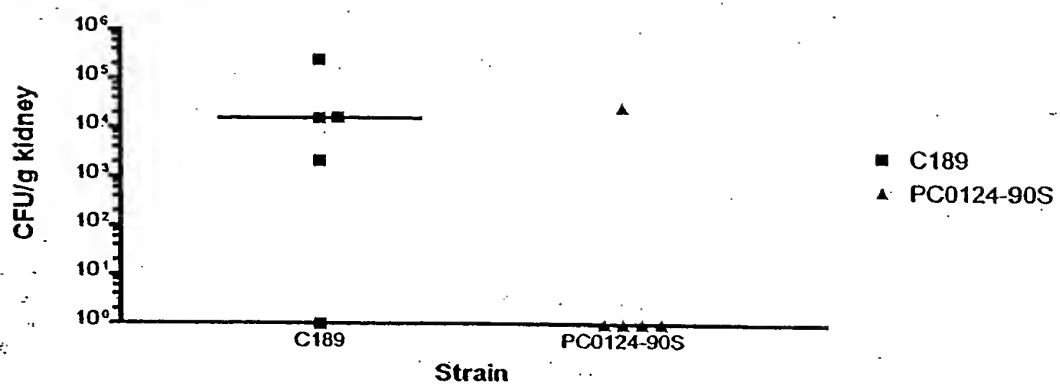
Strains compared	Student's <i>t</i> -test values (p)
KMD vs. PC1012	0.001
KMD vs. PC1003	0.061
KMD vs. PC1040	0.990
KMD vs. PC1038	0.042

Figure 3



Strains compared	Student's <i>t</i> -test values (p)
KMD vs. PC1012	0.007
KMD vs. PC1005	0.002
KMD vs. PC1035	0.318
KMD vs. PC1037	0.455
KMD vs. PC1033	0.477

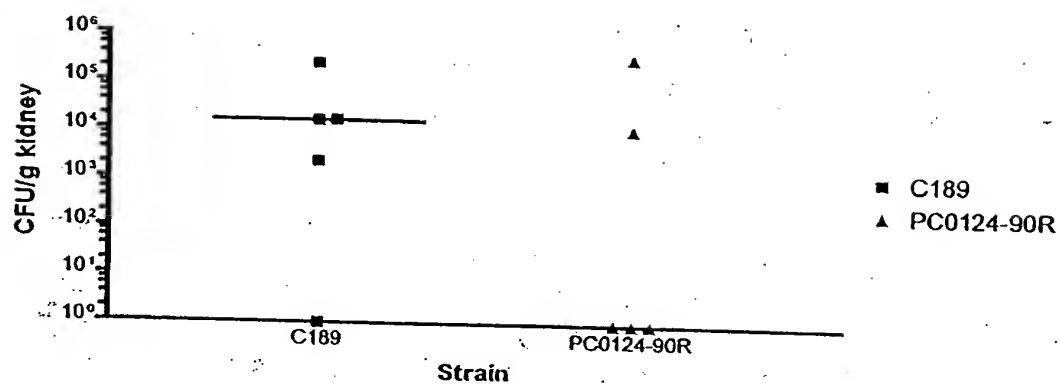
Figure 6



Strain
C189 vs. PC0124-90S

Student's t-test
0.082

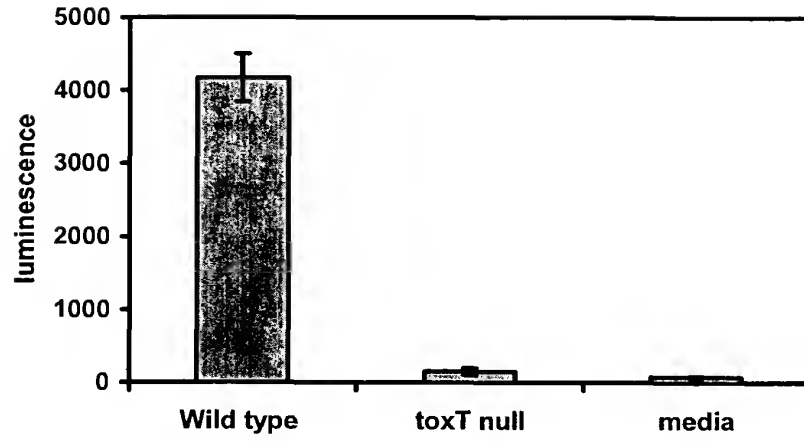
Figure 7.



Strain	Student's t-test
C189 vs. PC0124-90R	0.389

Figure 8.

A.



B.

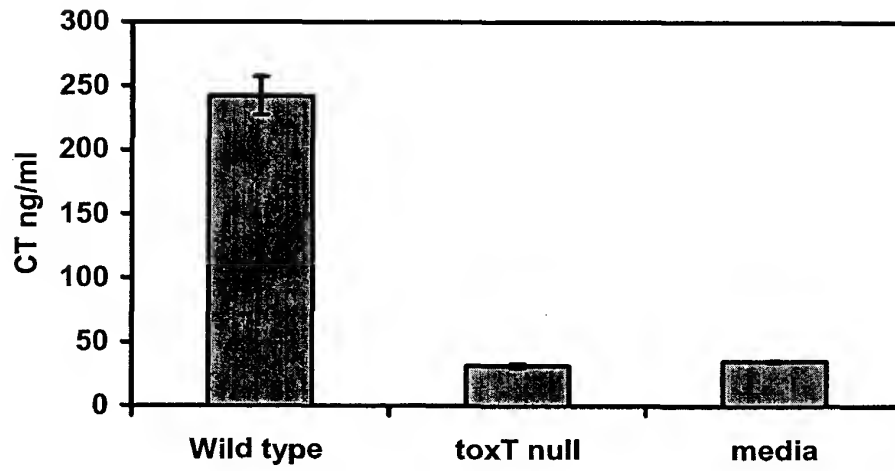


Figure 9

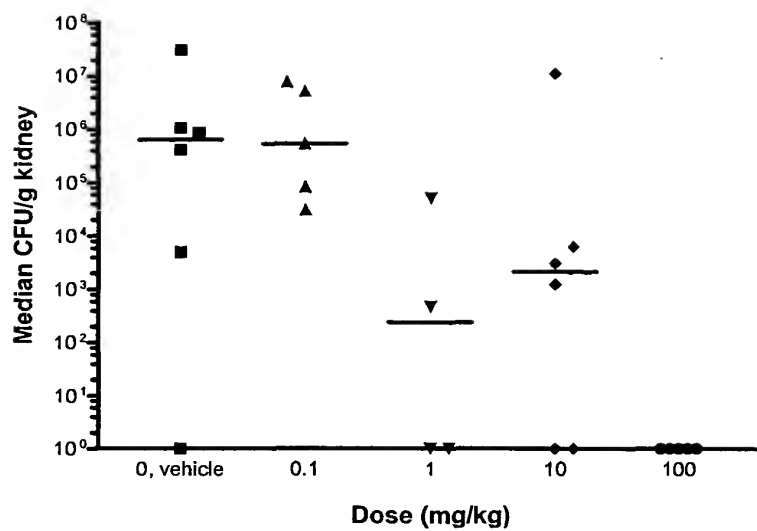


Figure 10